

10/552,597

In the Claims:

Please cancel claims 1-23, without prejudice or disclaimer of the subject matter therein, in favor of new claims 24-46 as follows.

In the Abstract:

Please cancel the Abstract of the Disclosure, presently on file, and enter into the record of this application the new Abstract of the Disclosure as follows.

1-23. (CANCELED)

24. (NEW) A multi-stage automatic transmission having a front-mounted gearset (VS) as an overdrive planet gearset, a main gearset designed as a multi-member planetary gear and first, second, third, fourth, fifth and sixth shifting elements (A, B, C, D, E, F) which, by selective engagement thereof, a transmission input rotational speed of an input shaft (AN) of the multi-stage automatic transmission can be transmitted to an output shaft (AB) of the multi-stage automatic transmission whereby when changing from one gear to a next following higher or a next following lower gear, of actuated shifting elements, only one additional shifting element is engaged and one of the engaged shifting elements is disengaged;

a sun gear (SO_VS) of the front-mounted gearset (VS) is fixed to a transmission housing (GE) of the multi-stage automatic transmission;

a web (ST_VS) of the front-mounted gearset (VS) is connected with the input shaft (AN) of the multi-stage automatic transmission;

the main gearset has a first, a second and a third rear-mounted gearset (NS1, NS2, NS3);

a sun gear (SO_NS1) of the first rear-mounted gearset (NS1) and a sun gear (SO_NS2) of the second rear-mounted gearset (NS2) are interconnected and can be connected, via a second shifting element (B), with an internal gear (HO_VS) of the front-mounted gearset (VS) and, via a third shifting element (C), with the input shaft (AN);

a web (ST_NS1) of the first rear-mounted gearset (NS1) can be fixed, via a fourth shifting element (D), to the transmission housing (GE) and, via a fifth shifting element (E), can be connected with the input shaft (AN);

an internal gear (HO_NS1) of the first front-mounted gearset (NS1) and a web (ST_NS2) of the second rear-mounted gearset (NS2) are interconnected and connected with the output shaft (AB);

an internal gear (HO_NS2) of the second rear-mounted gearset (NS2) can be fixed, via a sixth shifting element (F), to the transmission housing (GE);

a sun gear (SO_NS3) of the third rear-mounted gearset (NS3) is coupled with the sun gear (SO_NS2) of the second rear-mounted gearset (NS2);

a web (ST_NS3) of the third rear-mounted gearset (NS3) is coupled with the web (ST_NS2) of the second rear-mounted gearset (NS2);

an internal gear (HO_NS3) of the third rear-mounted gearset (NS3) can be connected, via a first shifting element (A), with the internal gear (HO_VS) of the front-mounted gearset (VS);

a connecting shifting element (VE) is provided, for connecting the output shaft (AB) and the coupled webs (ST_NS2, ST_NS3) of the second and third rear-mounted gearsets (NS2, NS3), which, when spatially viewed, penetrates axially between the internal gears (HO_NS2, HO_NS3) of the second and third rear-mounted gearsets (NS2, NS3) and, when viewed in an axial direction, entirely overlaps radially the internal gear (HO_NS3) of the third rear-mounted gearset (NS3); and

the input shaft (AN) and the output shaft (AB) are disposed coaxially with respect to one another.

25. (NEW) The multi-stage automatic transmission according to claim 24 wherein the third rear-mounted gearset (NS3) is disposed adjacent to the second rear-mounted gearset (NS2).

26. (NEW) The multi-stage automatic transmission according to claim 24, wherein the second and third rear-mounted gearsets (NS2, NS3) are combined to form a coupled rear-mounted gearset (NS23) having two internal gears (HO_NS2, HO_NS3), a common sun gear (SO_NS23) and a common web (ST_NS23) with common planetary gears (P_NS23).

27. (NEW) The multi-stage automatic transmission according to claim 24, wherein a ratio (i_{O_NS3}) of the third rear-mounted gearset (NS3) has quantitatively the same size as a ratio (i_{O_NS2}) of the second rear-mounted gearset (NS2).

28. (NEW) The multi-stage automatic transmission according to claim 24, wherein a ratio (i_{O_NS3}) of the third rear-mounted gearset (NS3) is one of quantitatively lower or higher than a ratio (i_{O_NS2}) of the second rear-mounted gearset (NS2).

29. (NEW) A multi-stage automatic transmission having one front-mounted gearset (VS) designed as an overdrive planet gearset, one main gearset designed as a multi-member planetary gear, first, second, third, fourth, fifth and sixth shifting elements (A, B, C, D, E, F) which, by selective engaging thereof, a transmission rotational speed of one input shaft (AN) of the multi-stage automatic transmission can be transmitted to an output shaft (AB) of the multi-stage automatic transmission so that when changing from one gear to a next following higher or a next following lower gear,

of actuated shifting elements, only one additional shifting element is engaged and one of the engaged shifting elements is disengaged;

a sun gear (SO_VS) of the front-mounted gearset (VS) is fixed to a transmission housing (GE) of the multi-stage automatic transmission;

a web (ST_VS) of the front-mounted gearset (VS) is connected with the input shaft (AN) of the multi-stage automatic transmission;

the main gearset has a first rear-mounted gearset (NS1);

a sun gear (SO_NS1) of the first rear-mounted gearset (NS1) can be connected, via a second shifting element (B), with an internal gear (HO_VS) of the front-mounted gearset (VS) and, via a third shifting element (C), with the input shaft (AN);

a web (ST_NS1) of the first rear-mounted gearset (NS1) can be fixed, via a fourth shifting element (D), to the transmission housing (GE) and can be connected, via a fifth shifting element (E), with the input shaft (AN);

an internal gear (HO_NS1) of the first rear-mounted gearset (NS1) is connected with the output shaft (AB);

the main gearset has a second rear-mounted gearset, a coupled rear-mounted gearset (NS23) with second and third internal gears (HO_NS2, HO_NS3), a sun gear (SO_NS23) and a web (ST_NS23);

the planetary gears (P_NS23), supported on the web (ST_NS23) of the coupled rear-mounted gearset (NS23), mesh with the sun gear (SO_NS23) and both of the internal gears (HO_NS2, HO_NS3) of the coupled rear-mounted gearset (NS23);

the first internal gear (HO_NS2) of the coupled rear-mounted gearset (NS23) can be fixed, via a sixth shifting element (F), to the transmission housing (GE);

the second internal gear (HO_NS3) of the coupled rear-mounted set (NS23) can be connected, via a first shifting element (A), with the internal gear (HO_VS) of the front-mounted gearset (VS);

the sun gear (SO_NS3) of the coupled rear-mounted gearset (NS23) is connected with the sun gear (SO_NS1) of the first rear-mounted gearset (NS1);

the web (ST_NS23) of the coupled rear-mounted gearset (NS23) is connected with the internal gear (HO_NS1) of the first rear-mounted gearset (NS1);

a connecting shifting element (VE) is provided, for connecting the output shaft (AB) with the web (ST_NS23) of the coupled rear-mounted gearset (NS23), which, when spatially viewed, penetrates axially between the internal gears (HO_NS2, HO_NS3) of the coupled rear-mounted gearset (NS23) and radially entirely overlaps, when viewed in an axial direction, the second internal gear (HO_NS3) of the coupled rear-mounted gearset (NS23); and

the input shaft (AN) and the output shaft (AB) are disposed coaxially with respect to one another.

30. (NEW) The multi-stage automatic transmission according to claim 29, wherein the connecting shifting element (VE) is attached upon the side of the coupled rear-mounted gearset (NS23) opposite the first rear-mounted gearset (NS1) to the web (ST_NS23) of the coupled rear-mounted gearset (NS23).

31. (NEW) The multi-stage automatic transmission according to claim 26, wherein the planetary gears (P_NS23) of the coupled rear-mounted gearset (NS23) are designed as stepped planetary gears, the first internal gear (HO_NS2) of the coupled rear-mounted gearset (NS23) meshes with a first step of the stepped planetary gears, the second internal gear (HO_NS3) of the coupled rear-mounted gearset (NS23) meshes with a second step of the stepped planetary gears and the sun gear (SO_NS23) of the coupled rear-mounted gearset (NS23) meshes with the one of a first and a second step of the stepped planetary gears.

32. (NEW) The multi-stage automatic transmission according to claim 24, wherein the internal gears (HO_NS2, HO_NS3) of the second and the third rear-mounted gearsets (NS2, NS3) and of the coupled rear-mounted gearset (NS23) have a different number of teeth.

33. (NEW) The multi-stage automatic transmission according to claim 24, wherein first, second, third, fourth, fifth, sixth, seventh and eighth forward gears can be shifted without range shifting, with the third and the sixth shifting elements (C, F) engaged for the first forward gear, the second and the sixth shifting elements (B, F) engaged for the second forward gear, the fifth and the sixth shifting elements (E, F) engaged for the third forward gear, the second and the fifth shifting elements (B, E) engaged for the fourth forward gear, the third and the fifth shifting elements (C, E) engaged for the fifth forward gear, the first and the fifth shifting elements (A, E) engaged for the sixth forward gear, the first and the third shifting elements (A, C)

engaged for the seventh forward gear and the first and second shifting elements (A, B) engaged for the eighth forward gear.

34. (NEW) The multi-stage automatic transmission according to claim 24, wherein the third and the fourth shifting elements (C, D) are engaged for a reverse gear.

35. (NEW) The multi-stage automatic transmission according to claim 24, wherein the third shifting element (C) is provided as a starting element for the multi-stage automatic transmission.

36. (NEW) The multi-stage automatic transmission according to claim 24, wherein the sixth shifting element (F) is provided as a starting element for starting up in a forward gear and one of the third and the fourth shifting elements (C, D) is provided as a starting element for starting up in a reverse gear.

37. (NEW) The multi-stage automatic transmission according to claim 24, wherein the front-mounted gearset (VS) is located on a side of the transmission housing (GE) facing a prime mover of the multi-stage automatic transmission which is operatively connected with the input shaft (AN).

38. (NEW) The multi-stage automatic transmission according to claim 24, wherein one of the third rear-mounted gearset (NS3) and the coupled rear-mounted gearset (NS23) is situated on a side of the transmission housing (GE) remote from the prime mover of the multi-stage automatic transmission.

39. (NEW) The multi-stage automatic transmission according to claim 24, wherein the first, the second the third rear-mounted gearsets (NS1, NS2, NS3) and the first and a coupled rear mounted gear set (NS1, NS23) of the main gearset are axially disposed side-by-side in a row.

40. (NEW) The multi-stage automatic transmission according to claim 24, wherein the second shifting element (B) is situated adjacent to the front-mounted gearset (VS).

41. (NEW) The multi-stage automatic transmission according to claim 24, wherein the second shifting element (B) is situated axially between the front-mounted gearset (VS) and the first rear-mounted gearset (NS1).

42. (NEW) The multi-stage automatic transmission according to claim 24, wherein the fifth shifting element (E) is situated closer to the first rear-mounted gearset (NS1) than the third shifting element (C), and discs of the fifth shifting

element (E) are situated closer to the first rear-mounted gearset (NS1) than discs of the third shifting element (C).

43. (NEW) The multi-stage automatic transmission according to claim 24, wherein an input element of the third and the fifth shifting elements (C, E) is designed as a disc carrier having a first radial extension section is situated spatially upon a side of the front-mounted gearset (VS) facing the main gearset and is connected with the input shaft (AN), a second axial extension section joins the first radial extension section and penetrates the web (ST_VS) of the front-mounted gearset (VS) in an axial direction, a third radial extension section joins the second radial extension section and is situated upon the side of the front-mounted gearset (VS) opposite the main gearset and extends outwardly in a radial direction, the same as a fourth axial extension section joins the third axial extension section and extends in an axial direction radially above the front-mounted gearset in a direction of the main gearset to the discs of the third and the fifth shifting elements (C, E) and also axially overlaps entirely the front-mounted gearset (VS).

44. (NEW) The multi-stage automatic transmission according to claim 24, wherein the first shifting element (A) is situated adjacent one of the third rear-mounted gearset (NS3) and the coupled rear-mounted gearset (NS23).

45. (NEW) The multi-stage automatic transmission according to claim 24, wherein the first shifting element (A) is situated upon one of a side of the third rear-mounted gearset (NS3) remote from the second rear-mounted gearset (NS2) and a side of the coupled rear-mounted gearset (NS23) remote from the first rear-mounted gearset (NS1).

46. (NEW) The multi-stage automatic transmission according to claim 24, wherein the connecting shifting element (VE) which connects the output element of the main gearset with the output shaft (AB), viewed in an axial direction, completely radially overlaps the first shifting element (A).